PREVALENCE AND PROFILE OF BACTERIAL, FUNGAL AND PARASITIC OPPORTUNISTIC INFECTIONS IN PEOPLE LIVING WITH HIV/AIDS

ABSTRACT

Background:

Opportunistic infections (OI) are the major cause of morbidity and mortality among human immunodeficiency virus (HIV) infected individuals. The pattern of OIs differs widely, hence it is necessary to correlate spectrum of OIs and CD4 counts among HIV infected individuals in specific localities.

Aims and Objectives:

To study the pattern of bacterial, fungal and parasitic opportunistic infections in People living with HIV/AIDS (PLHA) and to correlate their CD4 counts with the spectrum of opportunistic infections

Materials and Methods:

The cross-sectional study was conducted for a period of 1year from July 2016 to June 2017 including 140 PLHA with signs and symptoms of OI. After obtaining informed written consent, samples were collected based on the clinical symptoms and signs using standard work precautions and processed by standard microbiological methods. CD4 count was estimated for all the patients included in the study.

Results:

Of the 140 PLHA recruited, etiological agents causing opportunistic infection was identified in 50 PLHA. Tuberculosis was the predominant OI constituting to 48% followed by Candidiasis (34.6%), Bacterial bronchopneumonia (9.6%), Cryptococcal meningitis (3.85%), *Pneumocystis jirovecii* pneumonia (1.9%) and Strongyloidosis(1.9%). Pulmonary tuberculosis was more common (84%) than extrapulmonary tuberculosis(16%). *Candida albicans* (66.6%) was the most commonly isolated Candida species from Oral thrush compared to non-*albicans*

Candida species (33.3%). *C.tropicalis* was the predominant species among non-*albicans Candida* followed by *C.dubliniensis, C.krusei* and *C.parapsilosis.* Prevalence of opportunistic infections showed significant association($P<0.0001$) of increasing trend with decrease in CD4 cell count.

Conclusion:

The present study reflects that Tuberculosis followed by Candidiasis were the most common OIs seen in PLHA and the risk of OI increases with decrease in CD4 count. Prompt HAART initiation, along with monitoring patients for OIs with lowered CD4 count, initiating OI prophylaxis, early diagnosis and treatment of OIs will aid in decreasing the morbidity and mortality of the PLHA.

Keywords: Human immunodeficiency virus; opportunistic infections; CD4 count; Tuberculosis; Candidiasis.